

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1-40. (canceled)

41. (previously presented) A purified or isolated nucleic acid molecule, said nucleic acid molecule selected from the group consisting of:

(a) a nucleic acid molecule consisting of SEQ ID NO:3, or the complementary sequence to SEQ ID NO:3, SEQ ID NO:5 or the complementary sequence to SEQ ID NO:5; and

(b) a nucleic acid molecule comprising SEQ ID NO:1 or the complementary sequence to SEQ ID NO:1, wherein said nucleic acid molecule extends at a maximum 30,000 nucleotides over the 5' and/or 3' end of the nucleic acid molecule of SEQ ID NO:1.

42. (canceled)

43. (previously presented) The nucleic acid molecule of claim 41, wherein said nucleic acid molecule is genomic DNA.

44. (previously presented) The nucleic acid molecule of claim 43, wherein said genomic DNA is part of a gene.

45-47. (canceled)

48. (previously presented) A vector comprising the nucleic acid molecule of claim 41.

49-50. (canceled)

51. (previously presented) An isolated host cell transformed with the vector of claim 48.

52. (previously presented) The host cell of claim 51, wherein said host cell is selected from the group consisting of a bacterium, a yeast cell, an insect cell, a fungal cell, a mammalian cell, and a plant cell.

53-55. (canceled)

56. (previously presented) A diagnostic composition for diagnosing or assessing an individual's predisposition to develop adult-type hypolactasia, comprising the nucleic acid molecule of claim 77.

57-74. (canceled)

75. (previously presented) A kit comprising the nucleic acid molecule of claim 77.

76. (previously presented) The nucleic acid molecule of claim 41, consisting of SEQ ID NO:3 or SEQ ID NO:5.

77. (currently amended) A nucleic acid molecule, said nucleic acid molecule consisting of a sequence of at least 14 consecutive nucleotides of SEQ ID NO:3, SEQ ID NO:5, or a complementary sequence thereof, wherein said sequence contains the nucleotide at position 324 **and wherein said nucleic acid molecule extends at a maximum 30,000 nucleotides over the 5' and/or 3' end of the nucleic acid molecule of SEQ ID NO:3 and SEQ ID NO:5 or the complementary sequence thereof.**

78. (canceled)

79. (previously presented) The nucleic acid molecule of claim 77, wherein said sequence consists of from 14 to 24 nucleotides.

80. (previously presented) The nucleic acid molecule of claim 77, wherein said sequence comprises a detectable label.

81. (previously presented) The nucleic acid molecule of claim 80, wherein said detectable label is a fluorescent label.

82. (previously presented) The nucleic acid molecule of claim 80, wherein said detectable label is a radioactive label.

83. (currently amended) A purified or isolated polynucleotide of at least 20 nucleotides the complementary strand of which hybridizes under highly stringent conditions to the nucleic acid molecule selected from the group consisting of SEQ ID NO:3 or SEQ ID NO:5, wherein said polynucleotide contains the nucleotide at position 324 of SEQ ID NO:3 or SEQ ID NO:5 **and wherein said polynucleotide extends at a maximum 30,000 nucleotides over the 5' and/or 3' end of the nucleic acid molecule of SEQ ID NO:3 and SEQ ID NO:5 or the complementary sequence thereof.**

84. (currently amended) A primer, wherein the primer hybridizes under highly stringent conditions to a nucleic acid molecule selected from the group consisting of SEQ ID NO:3 or SEQ ID NO:5, has a length of at least 14 nucleotides **and a maximum of 24 nucleotides**, and contains the nucleotide at position 324 **and consists of the sequence selected from the group consisting of SEQ ID NO:3 and SEQ ID NO:5.**

85. (currently amended) A primer pair, wherein each primer in the primer pair hybridizes under highly stringent conditions to a nucleic acid molecule selected from the group consisting of SEQ ID NO:3 or SEQ ID NO:5 and has a length of at least 14 nucleotides, **and a maximum of 24 nucleotides** wherein one primer in the primer pair contains the nucleotide at position 324 **and consists of the sequence selected from the group consisting of SEQ ID NO:3 and SEQ ID NO:5.**

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86. (previously presented) A kit comprising the nucleic acid molecule of claim 41.